

### **REMARKS/ARGUMENTS**

Claims 1-7 were pending in the present application before the amendment as set forth above. By the amendment, claims 1, 2 and 7 are amended.

In the October 8, 2008 Office Action, claims 1-5 were rejected under 35 U.S.C. §102(e) as being anticipated by US Pat. No. 7,146,410 to Akman (hereinafter "Akman"). Claims 6 and 7 were rejected 35 U.S.C. §103(a) as being unpatentable over Akman in view of Non Patent Literature "RFC 3535 - Gateway Control Protocol Version I" to Network Working Group (hereinafter "NWG"). Additionally, the specification were objected to because of the title of the invention being not descriptive.

Applicant very appreciates the Examiner's careful review of the instant application.

In response, as set forth above, claims 1, 2 and 7 have been amended for better form.

Additionally, the title of the invention has been amended, as suggested by the Examiner. Particularly, the title of the invention: "A METHOD FOR REALIZING SIGNALING AGENT", which was previously amended in the preliminary amendment filed February 6, 2008, has been replaced with the amended title of the invention: "METHOD FOR REALIZING SIGNALING AGENT BASED ON MEGACO PROTOCOL". Applicant respectfully submits that the amended title of the invention is clearly indicative of the invention to which the claims are directed. Accordingly, the objection to the specification has been overcome.

Applicant asserts that no new matter is added.

Any amendments to the claims not specifically referred to herein as being included for the purpose of distinguishing the claims from cited references are included for the purpose of clarification, consistence and/or grammatical correction only.

It is now believed that the application is in condition for allowance at least for the reasons set forth below and such allowance is respectfully requested.

The following remarks herein are considered to be responsive thereto.

#### **Claim Rejections Under 35 U.S.C. §102**

In the Office Action, claims 1-5 were rejected under 35 U.S.C. §102(e) as being anticipated by Akman. Applicant respectfully traverses the rejections made by the Examiner at

least for the reasons set forth below:

Claim 1, among other things, recites a method for realizing signaling agent in a network system, wherein the network system comprises media gateways and a media gateway controller in different networks, and at least one agent equipment on a boundary of different networks, in which MEGACO protocol is adopted between the media gateways and the media gateway controller; the agent equipment has at least two network addresses, one is a first network address in a network of the media gateway controller, the other one is a second network address in a network of a media gateway side. The method includes the steps of:

step 1: a media gateway requesting register to the media gateway controller, and *the agent equipment dynamically recording message identifier of the media gateway to be registered and network address according to the register message;*

step 2: *for a MEGACO signaling that is unconcerned with media stream port of the media gateway, the agent equipment directly forwarding according to message identifier in the signaling;*

step 3: *for a MEGACO signaling that is concerned with media stream port, the agent equipment processing media stream attributes correspondingly, and then forwarding the signaling according to the message identifier in the signaling.*

However, with reference to Akman, it discloses a method for ensuring that the control protocol (e.g. MEGACO) can be used between Media Gateways (MGs) and Media Gateway Control (MGCs) that reside on separate IP networks, wherein Network Address Translation (NAT) is strategically implemented to inspect and translate control protocol messages exchanged between nodes on separate IP networks.

Applicant respectfully submits that at least following elements recited in claim 1 of the present invention are not disclosed, taught or suggested in Akman:

a) The element of “the agent equipment dynamically recording message identifier of the media gateway to be registered and network address according to the register message” is not disclosed, taught or suggested in Akman

In step 1 of claim 1 of the present application, the agent equipment dynamically records *message identifier* of the media gateway to be registered and network address according to the

register message

In Akman, the Network Address Translation (NAT) is for translating the IP address of the media gateway included in the control protocol message (please see lines 12-15 in column 2 of Akman for detail). Additionally, in Akman, after receiving the Service Change message, the firewall/NAT 160 then inspects the message and changes the IP address of the MG from {10.12.2.2} to [175.17.4.1]; the change is entered in the NAT table maintained by the firewall/NAT 160 (See, Akman, col. 4, lines 25-41, and Fig. 2A). That is to say, in Akman, the change of the IP address of the MG is stored in the NAT table, which is different from what claim 1 of the present application defined: “the agent equipment dynamically recording message identifier of the media gateway to be registered and network address according to the register message”. First, *what is recorded in claim 1 of the present application is “message identifier” rather than “media identifier” indicated in the examination opinions.* Second, *“message identifier” dynamically recorded in claim 1 of the present application means an ID of the transmitted message defined in MEGACO protocol. The Message ID is an ID for identifying MG defined in MEGACO, which can be equipment name, user’s name or others, and is the special content in MEGACO protocol,* rather than traditional domain or IP address in IP header on data network. Therefore, Akman does not disclose, teach or suggest the feature “the agent equipment dynamically recording message identifier of the media gateway to be registered and network address according to the register message”.

b) The element of “step 2: for a MEGACO signaling that is unconcerned with media stream port of the media gateway, the agent equipment directly forwarding according to message identifier in the signaling” is not disclosed, taught or suggested in Akman.

The step 2 in claim 1 of the present application is *to process MEGACO signaling based on “message identifier”, in which, it judges whether MEGACO is concerned with “media stream pot”; if not concerned,* the agent equipment directly forwarding according to message identifier in the signaling.

Akman (col. 5, lines 6-34) discloses a basic IP telephone call walk through of message exchanged between a media gateway and a media gateway controller; however, this is different from “step 2” in claim 1 of the present application. First, step 2 in claim 1 of the present

application is to process MEGACO signaling based on “*message identifier*”; as discussed in a). Akman does not disclose “message identifier” recited in claim 1 of the present application, therefore, Akman does not disclose any manner for processing based on “message identifier”. Second, in the basic IP telephone call walk of Akman, MEGACO offhook message is different from “a MEGACO signaling that is unconcerned with media stream port of the media gateway” defined in claim 1 of the present application. In Akman, it is silent to any information about judgment of whether MEGACO Offhook message is concerned with media stream port of the media gateway or not, instead, it only indicates that MEGACO Offhook message is a message sent by media gateway that contains its own IP address (10.12.2.2). After a port of firewall/MAT 160 receives the MEGACO offhook message, media gateway controller is not able to recognize the source IP address of (10.12.2.2), thus the firewall/NAT 160 translates the IP address (10.12.2.2) into an IP address that the media gateway controller is able to recognize, then the MEGACO Offhook message with the translated IP address is routed to media gateway controller. In other words, in Akman, it does not judge whether MEGACO Offhook message is concerned with media stream port of the media gateway, instead, directly forwarding the MEGACO Offhook message after the address being changed. However, in step 2 of claim 1 of the present application, it firstly judges whether MEGACO signaling is concerned with media stream port of the media gateway, if not concerned, the agent equipment directly forwarding according to message identifier in the signaling without address change. In MEGACO protocol, Megaco message contains Termination, but not every Termination is concerned with media stream port of the media gateway. In step 2 of claim 1 of the present application, for the MEGACO signaling that is unconcerned with media stream port of the media gateway, the agent equipment directly forwarding according to message identifier in the signaling. Therefore, Akman does not disclose, teach or suggest the feature: “step2: for a MEGACO signaling that is unconcerned with media stream port of the media gateway, the agent equipment directly forwarding according to message identifier in the signaling”.

c) The element of “step 3: for a MEGACO Signaling that is concerned with the media stream port, the agent equipment processing media stream attributes correspondingly, and then forwarding the Signaling according to the message identifier in the Signaling” is not disclosed,

taught or suggested in Akman

Step 3 in claim 1 of the present application is *to process MEGACO signaling based on “message identifier”, in which, it judges whether MEGACO signaling is concerned with media stream port, rather than judges whether MEGACO signal is concerned with media gateway as indicated in the examination opinions; if concerned*, the agent equipment processing media stream attributes correspondingly, and then forwarding the Signaling according to the message identifier in the Signaling.

In Akman, the contents of lines 19-29 in col. 3 discloses the possible configuration for MEGACO messaging between media gateway controller and media gateway in separate networks. The contents from line 61 in col. 4 to line 34 in col. 5 disclose a basic IP telephone call walk through of messages exchanged between MGs and a MGC. As recited in a), Akman does not disclose “message identifier” defined in claim 1 of the present application, thereby it certainly does not disclose any manner of processing based on “message identifier”. Moreover, as recited in b), Akman does not mention judgment of whether MEGACO Offhook message is concerned with media stream port of the media gateway or not, in other words, Akman does not judge whether MEGACO Offhook message is concerned with media stream port of the media gateway or not, instead, forwarding directly the MEGACO Offhook message after the address being change. In MEGACO protocol, not every MEGACO signaling is concerned with media stream port of the media gateway. In step 3 of claim 1 of the present application, it firstly judges whether MEGACO signaling is concerned with media stream port of the media gateway or not, if so, the agent equipment processes media stream attributes correspondingly, and then forwarding the Signaling according to the message identifier in the Signaling. Therefore, Akman does not discloses the feature: “step 3: for a MEGACO Signaling that is concerned with media stream port, the agent equipment processing media stream attributes correspondingly, and then forwarding the Signaling according to the message identifier in the Signalin”.

The technical scheme defined in claim 1 of the present application is to process a MEGACO signaling based on “message identifier”. It makes corresponding processing after judging whether the MEGACO signaling is concerned with “media stream port” or not. If the MEGACO signaling is unconcerned with media stream port, the agent equipment directly

forwarding the MEGACO signaling according to message identifier in the signaling; if the MEGACO signaling is concerned with media stream port, the agent equipment processes media stream attributes correspondingly, and then forwarding the MEGACO signaling according to the message identifier in the MEGACO signaling. The “message identifier” dynamically recorded in claim 1 of the present application means an ID of the transmitted Message defined in MEGACO protocol; the Message ID is an ID for identifying media gateway defined in MEGACO protocol, which can be equipment name, user’s name or others and the special content of MEGACO protocol, rather than traditional IP or domain address in IP header on data network.

Akman neither mentions any information about “message identifier” defined in claim 1 of the present application, nor any information about judgment of whether MEGACO signaling is concerned with media stream port or not, therefore, it does not disclose the result of the judgment and the processing to the MEGACO signaling based on message identifier.

In conclusion, the technical scheme defined in claim 1 of the present application is patentably different from that disclosed in Akman. Therefore, claim 1 of the present application is patentable under 35 U.S.C. §102(e) over Akman.

Additionally, the technical scheme defined in claim 1 of the present application is not obvious to people skilled in the art.

According to the above analysis, compared with Akman, the technical scheme defined in claim 1 of the present application at least has the following distinguishing technical features:

a) In claim 1 of the present application, the agent equipment dynamically recording ***message identifier*** of the media gateway to be registered and network address by according to the register message. Akman does not disclose this technical feature, and it only records the traditional IP or domain address in IP headers of data network.

b) In claim 1 of the present application, it processes MEGACO signaling based on “message identifier”. Akman does not disclose this technical feature; in Akman, for the message received, NAT only translates the IP address to enable forwarding the message among different networks.

c) In claim 1 of the present application, it judges whether MEGACO signaling is

concerned with “media stream port”; if not concerned, the agent equipment dynamically recording message identifier of the media gateway to be registered and network address by according to the register message. Akman does not disclose this technical feature. Akman does not mention any information about the judgment of whether MEGACO Offhook message is concerned with media stream port of the media gateway.

d) In claim 1 of the present application, it judges whether MEGACO signaling is concerned with “media stream port”; if so, the agent equipment processing media stream attributes correspondingly, and then forwarding the signaling according to the message identifier in the signaling. Akman does not disclose this technical feature. Akman does not mention any information about the judgment of whether MEGACO Offhook message is concerned with media stream port of the media gateway.

In other words, claim 1 of the present application provides a technical scheme to process MEGACO signaling based on “message identifier”, in which, processing correspondingly through of judgment that whether MEGACO signaling is concerned with media stream port or not, namely, if not concerned, the agent equipment dynamically recording message identifier of the media gateway to be registered and network address by according to the register message; if concerned, the agent equipment processing media stream attributes correspondingly, and then forwarding the signaling according to the message identifier in the signaling. ***Such a simpler and more economic method implements that MEGACO signaling and media controlled by MEGACO signaling can be transparently traversed through different networks, and the media network controller controls on media gateways in another network as expediently as in the same network for realizing multiple value-added functions in call services; meanwhile in which no media gateway information needs be configured on the agent equipment, and media gateway information is dynamically generated according to MEGACO signaling by agent equipments, so that management on operating the media gateway controller and agent equipments is simplified when media gateways are changed, thereby the user management is highly facilitated and operation maintenance cost is reduced*** (please see lines 12-17 on page 2 of the initial description). Akman neither discloses the above distinguishing technical features, nor does it provide a teaching of applying the above distinguishing technical features to solve the

technical problem to be solved in the present application.

The above distinguishing technical features are not the common technical means in the art.

Therefore, the technical scheme seeking protection in claim 1 of the present application is non-obvious to a person skilled in the art. Thus, the technical scheme defined in claim 1 of the present application is patentable also under 35 U.S.C. §103 over Akman.

Accordingly, claims 2-5, which directly or indirectly depend from independent claim 1, are also patentable at least for this reason.

**Claim Rejections Under 35 U.S.C. § 103**

In the Office Action, claims 6 and 7 were rejected 35 U.S.C. §103(a) as being unpatentable over Akman in view of NWG.

Claims 6 and 7 are dependent from now allowable claim 1, and thus patentable as well, at least for this reason.

**CONCLUSION**

Applicant respectfully submits that the foregoing Amendment and Response place the present application in condition for allowance. If the Examiner believes that there are any issues that can be resolved by a telephone conference, or that there are any informalities that can be corrected by an Examiner's amendment, please call the undersigned at 404-495-3678.

January 5, 2009

Respectfully submitted,  
MORRIS, MANNING & MARTIN, LLP



Tim Tingkang Xia  
Attorney for Applicant on the Record  
Reg. No. 45,242

MORRIS, MANNING & MARTIN, LLP  
1600 Atlanta Financial Center  
3343 Peachtree Road, N.E.  
Atlanta, Georgia 30326-1044  
Phone: 404-233-7000  
Direct: 404-495-3678



**Appl. No. 10/567,136**  
**Amdt. Dated January 5, 2009**  
**Reply to Office Action of October 8, 2008**

**Customer No. 24728**